

Name _____

Stats Practice

In relation to AP Biology Investigation #11 on Transpiration, you and your lab partner record the following counts of stomata in sunflower leaves vs pansies.

Table 1: Stomata per Examination Area

Plant	1	2	3	4	5	6
Sunflower Stomata	88	93	90	92	75	78
Pansy Stomata	80	85	72	67	77	72

1. Using the equations given to you, calculate the following for the sunflower stomata by hand.

(a) Calculate the mean number of stomata for the sunflower leaves.

(b) Calculate the median number of stomata for the sunflower leaves.

(c) Calculate the standard deviation of the number of stomata for the sunflower leaves.

(d) Calculate the standard error in the number of stomata for the sunflower leaves.

2. Now, do the same for the pansies using google sheets.

(a) Calculate the mean number of stomata for the pansy leaves.

(b) Calculate the median number of stomata for the pansy leaves.

(c) Calculate the standard deviation of the number of stomata for the pansy leaves.

(d) Calculate the standard error in the number of stomata for the pansy leaves.

3. Make a (very simple) bar graph with the mean of the number of stomata for the sunflower and pansy leaves. Draw the SEM bars on the graph. Interpret the standard error values (is the difference significant or not).

